

WHAT IS CLAIMED IS:

1. An image forming device, comprising:
 - an image forming unit that forms an image on a recording medium, the recording medium having a first face and a second face reverse to the first face;
 - a register roller rotatably provided upstream from the image forming unit, the register roller feeding the recording medium toward the image forming unit;
 - a feed unit provided downstream from the image forming unit, the feed unit feeding the recording medium to the register roller; and
 - a controller that controls a rotation of the register roller such that a leading edge of the recording medium is stopped at the register roller when an image has not been formed on the first face and such that the leading edge of the recording medium is not stopped at the register roller when the recording medium with the image formed on the first face is fed by the feed unit to the register roller.
2. The image forming device according to claim 1, wherein the feed unit further comprises:
 - a guide portion, extending in parallel with a feed direction of the recording medium, that guides a side edge of the recording medium in the feed direction; and
 - a pair of feed rollers that feed the recording medium in the feed direction, wherein the pair of feed rollers are disposed such that recording medium moves toward the guide portion.
3. The image forming device according to claim 2, wherein the feed direction and a direction in which the recording medium is moved by the pair of feed rollers define a predetermined angle that is between 0 degree to 45 degrees.
4. The image forming device according to claim 2, wherein the guide portion and the pair of feed rollers are provided at one side of the feed unit in the feed direction.
5. The image forming device according to claim 4, wherein a circuit board is provided at another side of the feed unit in the feed direction.
6. The image forming device according to claim 2, wherein the feed unit further comprises:
 - a feed tray that supports the recording medium thereon fed in the feed direction; and
 - a roller holder, provided at one side of the feed tray in the feed direction, that holds one of the pair of feed rollers.

7. The image forming device according to claim 1, wherein the image forming unit further comprises:

a fixing unit that fixes the image on the recording medium, wherein the image forming unit forms the image on the recording medium in an electrophotographic process, the feed unit being provided at the downstream portion from the fixing unit.

8. The image forming device according to claim 2, wherein the guide portion further comprises:

a guide plate extending in parallel with the feed direction of the recording medium; and

a guide edge formed on one side of the guide portion that guides the side edge of the recording medium in the feed direction.

9. The image forming device according to claim 1, wherein the feed unit further comprises:

a guide portion, extending in parallel with a feed direction of the recording medium, that guides a side edge of the recording medium in the feed direction;

an upstream pair of feed rollers that are disposed such that the recording medium moves toward the guide portion; and

a downstream pair of feed rollers that are disposed such that the recording medium moves in a direction parallel to the feed direction.

10. The image forming device according to claim 1, comprising:

a second feed unit provided upstream from the image forming unit, the second feed unit feeding the recording medium to the register roller.

11. An image forming device, comprising:

an image forming unit that forms an image on a recording medium, the recording medium having a first face and a second face reverse to the first face;

a register roller rotatably provided upstream from the image forming unit, the register roller feeding the recording medium toward the image forming unit;

a first feed unit provided downstream from the image forming unit, the first feed unit feeding the recording medium to the register roller;

a second feed unit provided upstream from the image forming unit, the second feed unit feeding the recording medium to the register roller; and

a controller that controls a rotation of the register roller such that a leading edge of the recording medium is stopped at the register roller when the recording medium is fed from the second feed unit to the register roller and such that the leading edge of the

recording medium is not stopped at the register roller when the recording medium is fed from the first feed unit.

12. The image forming device according to claim 11, wherein the first feed unit further comprises:

a guide portion, extending in parallel with a feed direction of the recording medium, that guides a side edge of the recording medium in the feed direction; and

a pair of feed rollers that feed the recording medium in the feed direction, wherein the pair of feed rollers are disposed such that recording medium moves toward the guide portion.

13. The image forming device according to claim 12, wherein the feed direction and a direction in which the recording medium is moved by the pair of feed rollers define a predetermined angle that is between 0 degree to 45 degrees.

14. The image forming device according to claim 12, wherein the guide portion and the pair of feed rollers are provided at one side of the first feed unit in the feed direction.

15. The image forming device according to claim 14, wherein a circuit board is provided at another side of the first feed unit in the feed direction.

16. The image forming device according to claim 12, wherein the first feed unit further comprises:

a feed tray that supports the recording medium thereon fed in the feed direction; and

a roller holder, provided at one side of the feed tray in the feed direction, that holds one of the pair of feed rollers.

17. The image forming device according to claim 11, wherein the image forming unit further comprises:

a fixing unit that fixes the image on the recording medium, wherein the image forming unit forms the image on the recording medium in an electrophotographic process, the first feed unit being provided at the downstream portion from the fixing unit.

18. The image forming device according to claim 12, wherein the guide portion further comprises:

a guide plate extending in parallel with the feed direction of the recording medium; and

a guide edge formed on one side of the guide portion that guides the side edge of the recording medium in the feed direction.

19. The image forming device according to claim 11, wherein the first feed unit further comprises:

a guide portion, extending in parallel with a feed direction of the recording medium, that guides a side edge of the recording medium in the feed direction;

an upstream pair of feed rollers that are disposed such that the recording medium moves toward the guide portion; and

a downstream pair of feed rollers that are disposed such that the recording medium moves in a direction parallel to the feed direction.

20. A method of feeding recording medium to an image forming unit that forms an image on the recording medium, the recording medium having a first face and a second face reverse to the first face, comprising:

determining whether printing has been performed on the first face of the recording medium;

stopping a rotation of a register roller, that feeds the recording medium to the image forming unit, for a predetermined period of time after a leading edge of the recording medium contacts the register roller, when an image has not been formed on the first face; and

maintaining the rotation of the register roller when the image has been formed on the first face.